

WHAT IS CLAIMED IS:

1. An apparatus for improving reception sensitivity of a public wave receiver, comprising:

a substrate formed in a power supply of the public wave receiver;
at least one power device mounted on the substrate of the power supply, for supplying power by a switching operation; and
a conductive shielding plate for preventing external transmission of noise generated by the at least one power device, the conductive shielding plate including a shielding surface for shielding a top surfaces of the at least one power device, and mounting legs extending from the shielding surface and mounted on the substrate.

2. The apparatus of claim 1, wherein the shielding surface is rectangular to shield top surfaces of a plurality of power devices at the same time.

3. The apparatus of claim 1, wherein the mounting legs are curved and extend from a bottom surface of the shielding surface.

4. The apparatus of claim 1, wherein the mounting legs include hooking strips for hooking the shielding plate on a bottom surface of the substrate.

5. The apparatus of claim 1, further comprising a heat sink located on a top surface of the shielding surface for emitting heat generated by the at least one power device.

6. The apparatus of claim 5, wherein a bottom surface of the heat sink is wider than the shielding surface.

7. The apparatus of claim 5, further comprising mounting screws having their ends positioned in the heat sink and the substrate for fixing the heat sink to the substrate.

8. The apparatus of claim 5, further comprising adhering members positioned between the heat sink and the shielding surface for conducting heat of the shielding plate to the heat sink, and for adhering the heat sink to the shielding surface.

9. The apparatus of claim 1, wherein soldering units are formed at contact portions of the substrate and the mounting legs, for dispersing signals transmitted to the mounting legs.

10. The apparatus of claim 1, further comprising a connecting wire including a signal line for transmitting signals received by a wire of an antenna to the public wave receiver, and a ground line formed coaxially to the signal line, wherein contact surfaces between the ground line and the signal line are insulated from each other by a shield layer.

11. An apparatus for improving reception sensitivity of a public wave receiver, comprising:

an antenna frame including a wire winding unit formed at an outer periphery thereof;

a receiving wire wound around the wire winding unit for receiving public waves; and

a connecting wire having one end electrically connected to the receiving wire and another end electrically connected to the public wave receiver, the connecting wire including a signal line through which the public waves received by the receiving

wire are transmitted, and a ground line formed coaxially to the signal line, wherein contact surfaces between the ground line and the signal line are insulated from each other by a shield layer.

12. The apparatus of claim 11, wherein an external shield layer is formed around an outermost portion of the connecting wire, for protecting the connecting wire.

13. The apparatus of claim 11, wherein the signal line is positioned inside the ground line.

14. The apparatus of claim 11, further comprising:
a hooking protrusion protruded from a predetermined portion of the antenna frame;
a first molded neck composed of a soft material and formed on the antenna frame in the opposite direction to the hooking protrusion;
a connecting plate composed of a soft material, and further extended from the first molded neck;

a second molded neck composed of a soft material, and further extended from the connecting plate; and

a supporting plate further extended from the second molded neck, the supporting plate including a hooking slot into which the hooking protrusion is inserted for supporting the antenna frame.

15. An apparatus for improving reception sensitivity of a public wave receiver, comprising:

power switching means for performing a switching operation to stably supply power to the public wave receiver;

shielding means for shielding noise generated by the power switching means;

cooling means for lowering a temperature of the power switching means; and

noise intercepting means for preventing noise from being transmitted to antenna means connected to the public wave receiver.

16. The apparatus of claim 15, wherein the noise intercepting means comprises a connecting wire including a signal line, a ground line, and a shield layer composed of an insulating material formed between the signal line and the ground line.

17. The apparatus of claim 15, wherein the shielding means comprises a shielding plate located between the power switching means and the cooling means.

18. The apparatus of claim 15, wherein the cooling means comprises a heat sink having a plurality of fins.

19. The apparatus of claim 15, wherein the noise intercepting means comprises a connecting wire including a signal line, a ground line, and a shield layer composed of an insulating material formed between the signal line and the ground line, wherein the shielding means comprises a shielding plate located between the power shielding means and the cooling means, and wherein the cooling means comprises a heat sink having a plurality of fins.